Aspects of Social Geography: Observations from An Indian City Jaipur:Rajasthan

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Abstract

Social geographers have been using three approaches: the outsiders, insiders and the Marxist approach. In this paper the social structure of an Indian city - Jaipur is examined by using the first two approaches to determine the aspects of social areas and discuss its ramifications.

Introduction

The disciplines which make up social sciences, individually and collectively, are facing a crisis; e.g. an article in the Chronicle of Higher Education (January 11, 1989) titled- "Disputes over validity of Historical approaches pits Traditionalist against Advocates of new methods", was reporting that this dispute had gone on for the last twenty years and once again was being debated in the annual meeting of the American Historical Association at Cincinnati. The article stated that this dispute had its beginning in the 1960s, when younger generation "aspiring to be scientific, they quantified and analyzed data that illuminated broad social trends..."(p.A 4). Earlier, in 1985 the magazine *History Today*, too had run a series of articles in an attempt to define e.g. 'what is Third World History' or " what is Social History etc., clearly indicating that some sort of definitions were needed. (Also see Himmelfarb's 'Clio and the New History in *The New History and the Old*.) A review of

an urban sociology textbook began by asking "Is Urban Sociology Dying? Urban anthropology too was facing its own crisis. In 1960s, urban geography also had its 'youngmen on new frontiers'. What this proves is that social sciences are facing a turmoil or a crisis. Let us ask what is this crisis? Are the disciplines making up social sciences face this crisis, because the subject matter i.e. the society is facing a crisis, and social sciences are just reflecting it. Or, is this crisis being caused by a loss of territoriality? We are no longer certain where one field ends and the other field begins. Most of the social sciences are attempting to explain, say an event, or an agglomeration of people etc., and the explanation forces us to venture in the unknown. i.e. sisterly disciplines. In other words, no individual discipline, it may be geography or sociology can totally explain an event or agglomeration of people. This fact in a way is responsible for the "identity crisis". Furthermore, the most commonly heard phrase is lack of theory in

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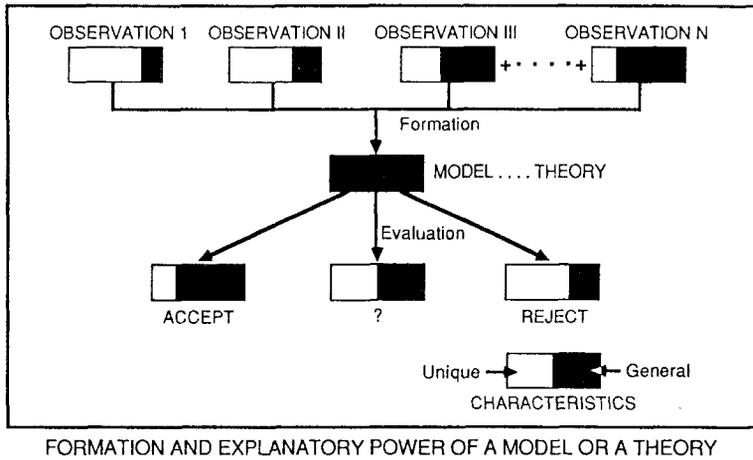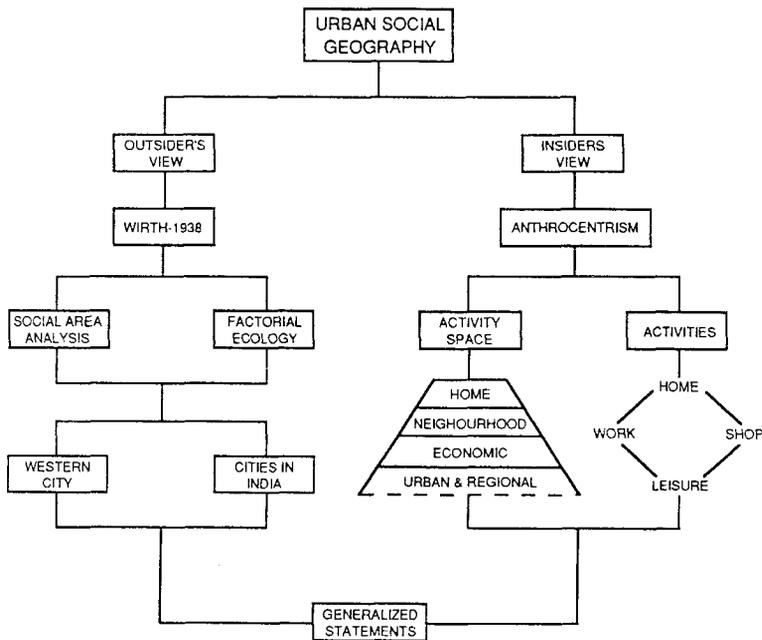
Fig. 1

Fig. 2

an explanation. Geographers became nomothetic. However, this emphasis on theory is not bad in itself, but somehow or other we have forgotten how theories in social sciences are derived.

Figure 1 shows that from a number of observations common characteristics are drawn together to form a generalized statement, which is a definition of a theory. When a theory is tested against a real world situa-

tion, it will depend upon the characteristics of that real world situation whether or not a theory will be supported. (Chakravarti & Tiwari 1990).

A theory can hardly be independent of the subject matter it is drawn from, hence some of the theories derived from Chicago material are not that useful to explain the urban characteristics in South Asia. It is not the fault of a theory but of those who expect a theory to have all the answers. As geographers we should also be alive to the problem that - the degree of generalizations is directly proportional to the distance between the place of "event" and the place of study i.e. distance effect. Another point can also be made that the amount of generalization is directly proportional to the "time" between the 'event' and the "time" of study i.e., time effect. In Geography, as in most social sciences, the distance and time effect play

an important role. Fortunately, geographers have been aware of their shortcomings and continue to borrow theories and models from our sister disciplines. Social geography, with a multitude of definitions also face a crisis, (Johnston 1987).

Currently, social geography has three schools of thoughts - 1. the outsider's view, 2. the insider's view and 3. the Marxism. The outsiders view draws its inspiration from sociology while the insider's view relies on Anthropology, while no explanation is required for the third one. In this paper the first two views are used to study an Indian city. The basic assumption is that human drama is played in space and on space, therefore, it legitimately becomes our concern. Figure 2 shows the basic organization of this paper.

Outsider's View

The outsider's view can be defined as those studies which use census data for studying intra-urban residential differentiation and is not a comment on researchers origin . This point of view will be briefly examined. Although one can trace the history to the last century but a good beginning will be with the Wirth's 1938 paper - Urbanism as a way
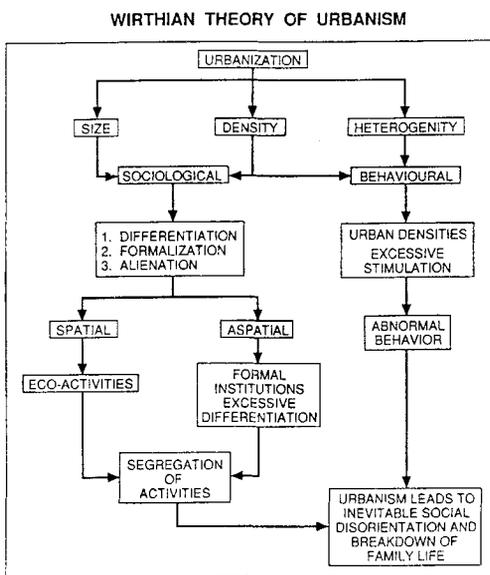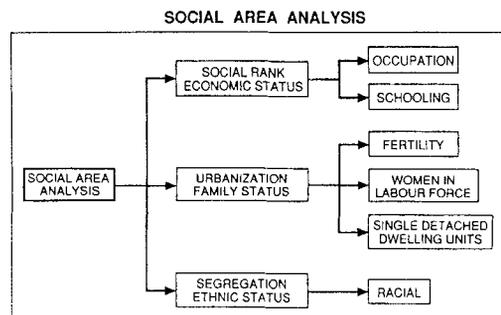
Fig. 3

Fig. 4

of life. Perhaps, this is the most influential paper and basically deals with the adaptation of immigrants (either from rural areas or from small towns) to a large city. The underlying assumption is that the migrants had more residential space in their earlier place and are now faced with smaller residential space and they must adjust to it. The immigrants also face large size of population; lack of residential space and higher densities; and, because immigrants have come from different parts of the country or from different countries, the population is not homogeneous.

These three factors i.e. size, density and heterogeneity together affect the urban society and as a consequence urbanism leads to inevitable social disorientation and breakdown of family life (Fig. 3). The social condition -ANOMIE - develops (Anomie - meaning a state of normallessness in which individuals find themselves with either no or confused guideline for action - The Dictionary of Human Geography p. 15).

Shevky Bell attempted to measure the changes brought by adaptation to urban life. Their method social area analysis (1949 and 1955), despite the criticism by Hawley & Duncan (1957), has become an accepted method of studying social areas within a city. Their three constructs social rank, urbanization and segregation, attempt to measure an overall adjustment to an urban environment (Udry 1964).

It is commonly assumed that by moving to an urban area individuals change from primary activities to secondary or tertiary (or now quartemary) activities, and acquire as well as require more schooling/education hence the social rank index. The effect on family life by this urbanward movement is

that women join the labour force, and this also has an effect on the family size. Furthermore, the joint family system has given way to the nuclear family (and now, to single parent family) . These together have affected the type of housing demanded in urban areas - e.g. single family detached dwelling - if possible in suburbs. Finally. Shevky and Bell's segregation index describes the degree to which families still opt to live in an ethnically/culturally/liguistically residential area to which they belong (Fig. 4).

The advent of computers and the application of multivariate methods to intra-urban data sets has made the social area analysis give way to the factorial ecological studies. The social area analysis normally used six variables and deducted the residential differentiation, factorial ecology on the other hand uses the inductive theory and uses many more variables (between 9 to 150). The measurement units in both the methods are census tracts. The findings of factorial ecological studies have basically supported the findings of social area analysis.

Hamm (1982) reviewed the "substantive findings" of social area analysis and factorial ecological studies. After commenting on the studies of social area analysis, Hamm made three groups of factorial ecological studies: 1. the studies of the US cities (pp. 326-327), 2. the studies of Europe, Canada, Australia, and New Zealand (pp. 328-329); and, 3. the studies of Non-Industrials societies (p. 330)

On the basis of the studies of the cities in industrialized societies (Hamm and others) a general picture supporting the three constructs of social area analysis emegrges. If stated in term of their distribution in "urban

space" the following generalized statement can be made:

(a) the socio-economic dimension usually emerges as the first factor and shows that SES increases with the increase of distance from the CBD. It is also commonly agreed that this property is sectorially distributed within the city.

(b) the family status dimension is normally the second most important factor to emerge, and supports the concentric zone hypothesis. This factor also shows the support for the traditional values where a woman stays home to raise the family. Spatially, this depicts the suburban areas of the western city.

(c) the ethnic agglomerations are normally located in some tracts. If poverty is closely associated with ethnicity then these agglomerations are normally located in or around the Inner city. This distribution supports the Multiple Nuclei theory.

Factorial Ecological Studies of Cities in India

Only a selected studies of cities in India are discussed. The study of Calcutta in 1969 by Berry and Rees in which they managed to have a "closed resembelence of Calcutta ecology to the ecology of cities in the American South" (page 490).

They equated "landuse and familism gradient with the Shevky and Bell's urbanization dimension", both Singh (1973) and Dutta (1976) questioned this finding. Singh (page 31) states:

"It appears that Berry and Rees interpreted this factor out of the context of Indian society."

Berry and Spodek studied six cities in India, though Calcutta was common to both the above mentioned studies they made no attempt to compare the findings. What is of interest is their comment on social area analysis of Hyderabad; they stated that their study negates the assumption made by Alam (1969). The Hyderabad study, as quoted in Berry & Rees, states that "the social space of an Indian city can be studied simply using Indian equivalent of the two principal Shevky-Bell constructs of social rank and urbanization".

The two constructs were calculated as follows:

I   Social Rank
   A. Literacy among the general population
   B. Literacy among the females
   C. Relative proportion of the population in scheduled castes (varies inversely with A and B)

II   Urbanization
   A. Proportion of workers in manufacturing industries
   B. Workers in commercial activites
   C. Workers in other services

One of the findings of Hyderabad study was that the traditional social status declined with the increase of distance from the city center. Berry and Rees comment is worth noting:

"But they (Alam et.al) also found that the residential quarters of workers in the three occupational groups used to define urbanization were highly segregated, almost mutually exclusive, so that three constituent variables bore little rela-

tionship to each other. Nonetheless,
they (Alam et.al) crossed the ratings
of areas on the two constructs to
develop four "types'of social areas."

(Berry and Rees 1969:489)

Perhaps, Singh's remark that Berry & Rees had interpreted (social rank and familism factor) out of the context of Indian society, may have been on charitable side. Hyderabad, an ex-princely capital, was founded in late 1500s, is an Indian city, while Calcutta is a British-Indian city. The adoption of Shevky and Bell constructs to Indian conditions seem quite valid. As we will see later that literacy, specially amongst females, and distribution of scheduled castes and sceduled tribes within a city seem to approximate "social areas" within cities of India. Berry and Spodek (1971) studied large Indian cities and identified that socio-economic status as the key explanatory factor (page 284) for understanding the social geography of Indian cities. However, their remark that

"If ecology is to be understood as
process in time, much more histori-
cal study of urban ecology is needed
in Indian cities where traditional
patterns have great longevity and
where social areas display great
resistence to change." (p. 284).

This remark can be interpreted in two ways, one to do a historical or longitudnal study of one city or choose a "historical"city. The case for cities in India to be viewed as Indian city, Indo-British city, British Indian city and modern city in India has been made elsewhere (Tiwari 1987). Suffice to say that as geographers we should be cognizant to

the problem of scale, afterall the degree of generalization is directly proportional to the distance between the place of "event' and the place of study, a sort of distance effect. we should accept when Berry & Rees see no difference between Calcutta and other cities in India but for those people who study India the question remains "how much do you wish to generalize? We should not generalize to the extent that Calcutta and Chicago start having similar structure. However, Berry and Spodek did recognize the role of the Raj in altering urban morphology, they stated that:

"The issue is whether the emerging
forms are converging on the model
of the industrial metropolis, as sug-
gested by Berry and Rees in
Calcutta, or whether some new syn-
thesis of traditional and modern will
emerge"

(Berry & Spodek 1971:285)

The validity of factors or dimesions derived by Berry and Rees had been questioned by Singh and by Datta, therefore, the structure derived by Berry and Rees also comes under question. It is feeling here that any model relying on doubtful factors will remain suspect. With regards to the Berry and Spodek's observation about new synthesis - they are right, the new or emerging structure is like Indo-British city, which is newer or modem planned areas are being added to already existing "Indian" style city, e.g. Bhopal.

The following table shows the factor or dimension of social rank in a selected number of cities. Only four variables which loaded highly are shown only by their signs in the following table:
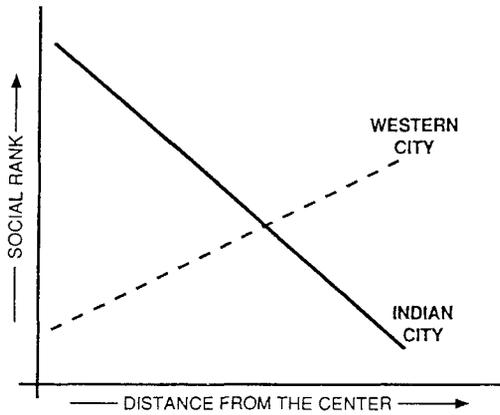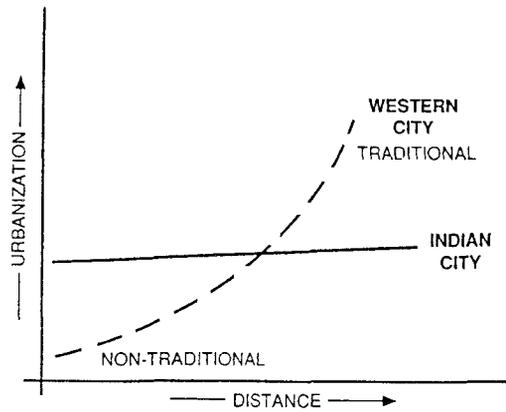
Fig. 5

Fig. 6

Cities 1961	Male Literacy	Female Literacy	Occu-pation Trade-Comm.	Percentage Sch. Caste & Sch. Tribe
Jaipur	+	+	+	-
Jodhpur	+	+	+	-
Alwar	+	+	+	-
Udaipur	+	+	+	-
Kota	+	+	+	-
Bikaner	-	-	-	+
Ajmer	+	+	+	-
Indore	+	+	+	-
Bhopal	+	-	+	-

The inverse relationship between literacy (male and female) and the distribution of scheduled castes and scheduled tribes is too clear and understandable. Inspite of Mahatma Gandhi's effort and the Government's effort to have positive discrimination for the scheduled castes, the residential geography of an Indian city is not all that much affected. As can be inferred from the table that the above four variables, Male literacy, Female literacy, Occupation in trade and commerce,

Category-Workers

1971		1981	
I.	Cultivators	I.	Cultivators
II.	Agricultural Labourers	II.	Agricultural Labourers
III.	Livestock. Forestery etc.		
IV.	Mining Quarrying etc.		
V.	Manufacturing		
	(A) Household Industry		(A) Household Industry
	(B) Other than Household		III. IV. VB. VI to IX - All in other Workers
VI.	Construction		
VII.	Trade and Commerce		
VIII.	Transport & Communications		
IX.	Other services		

and the distribution of scheduled caste and scheduled tribes can approximately describe the outsider's view of social geography.

In all these cases the data were derived from the published census reports, therefore, "... studies are not only data-led but are constructed by the views of others (also outsiders) on what information should be collected and how it should be released." (Johnston 1987:11) There are some other difficulties which even make the job of outsider a little difficult specially if one wanted to do a logitudanal study, the following table will illustrate this point.

In 1981, as can be seen from the table, a number of variables were added together to form "all other workers". The details, however, can be obtained at a price and a lot of patience, as Dickson has demonstrated in his two studies of Bombay and Delhi. Furthermore, the outsider's use census tracts as the measuring units, in case of the city of Jaipur, the census tracts have been altered so that it is practically impossible to use data from the past censuses to observe change.

The following diagrams depict the spatial distribution of the social rank and urbanization in western and cities of India (Figures 5 and 6).

The Insider's View

The followers of this approach feel that social areas derived either by Shevky and Bell method or by factorial ecological method are not true representative of homogeneous spatial units i.e. these areas do not represent same level of living, same way of life, and, same ethnic background. Besides, the "insiders" do not trust the total definiteness of positivist approach, they follow a kind of humanism with emphasis being placed on partcipant observation (The Dictionary of Human Geography). Ley suggests the fol-
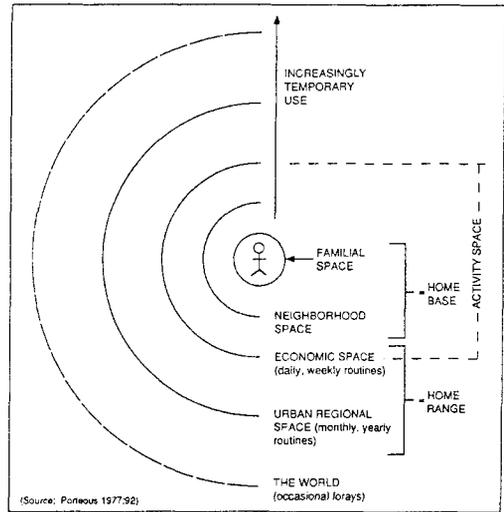
CHOMBART DE LAUWE'S HIERARCHY OF SOCIAL SPACES

Fig. 7

lowing 'building blocks' which can guide a social geographer from an insiders point of view: (i) anthropocentrism, (ii) social nature of experience; and, (iii) the interchange between a subject and multi-dimensional environment.(Ley 1978: 50-53)

This approach as mentioned above is also a part of humanistic tradition, the tradition which attributes "the active role to human awareness and human agency, human conscionsness and human activity. "(Buttimer 1979, quoted in the Dictionary of Human geography). The details and the debates between the various scholars who are the followers of the inside approach can not be discussed here, but it is generally agreed that inside approach considers man to be central and regards the world in terms of human values and human experiences, which is anthrocentrism. It is of interest to note that while social geographers are moving towards anthrocentrism, anthropologists are being asked to study Christaller (Blanton 1976:249 - 264). To obtain the insider's view,

the dominant research procedure is participant observation, and the resulting studies are known as urban ethnographies (Johnston 1987, Jackson 1984). The participant observation has been central to anthropological studies as George Gmelch explains:

> "The hall mark of anthropological field work has been the intensive participation of the anthropologist in the life of the community.... Unlike sociologists or political scientists who often commute to the people they study, anthroplologists try to live among their subjects, participating in and observing activities as fellow residents."

> *(Gmelch 1980:312)*

However, urban anthroplologists had to face the reality, living amongst the people is desireable but to obtain housing amongst the "subjects" is not always possible; consequently, even they have to compromise by communting. Their scale of studies have been limited either to a neighbourhood, or to a cluster of blocks, an ethnic group, or a religious group or an occupational group, e.g. Holmstrom studied the industrial labour in Banglore and Bombay (Holmstrom 1978 and 1984). As anthropolologists have discovered that urban fieldwork is not the same as living with some tribe in some lesser known area they are now compromising by commuting and sometimes using the published reports, something which outsiders so heavily rely on. But it would be fair to say anthropolologists normally use published material as a supplementary information (See MichaelWhiteford - Doing It: Urban Research in Popayan Colombia in Gmelch et.al 1980)

The insiders then follow an inductive approach and begin their observations at a small scale i.e. a household, a neighbourhood. The question normally posed is-how do the individuals interact with their social environment? The thread which binds this environment is 'human activity', and the space in which these activities are performed is known as activity space. "An individual's activity space is the spatial pattern of his activity system. His activity system is" a flow of activities during some specified period of time- perhaps a day, a week, a year, or even a life time during which the person is engaged in the pursuit of his affairs." (Chapin and Brail 1969: 108-109, Porteous 1977:93) Fig. 7 shows Chombart de Lauwe's hiearchy of social space; a breadwinner's daily activities will show the movement between the family space, neighbourhood space and economic space; and, the activities being work, shop, leisure and then to homebase. In the North American city, the distance between home and the place of work is a good indicator of socioeconomic status, and the distance between home and the place of work is also an important factor in buying a house. In a tradional city in India the distance between work and home can reflect the tradional socio-economic status and the achieved status. The tradional upper class still resides in the center of the city but the new emerging upper class and upper middle class locates it self in the new and emerging suburbs.

The inside approach, with its anthrocentrism and humanism, is not an alternative to the outsider's studies but should be in addition to the outsiders. As Johnston (1987:20) explains that the outsider's views are on society while the insiders are work-
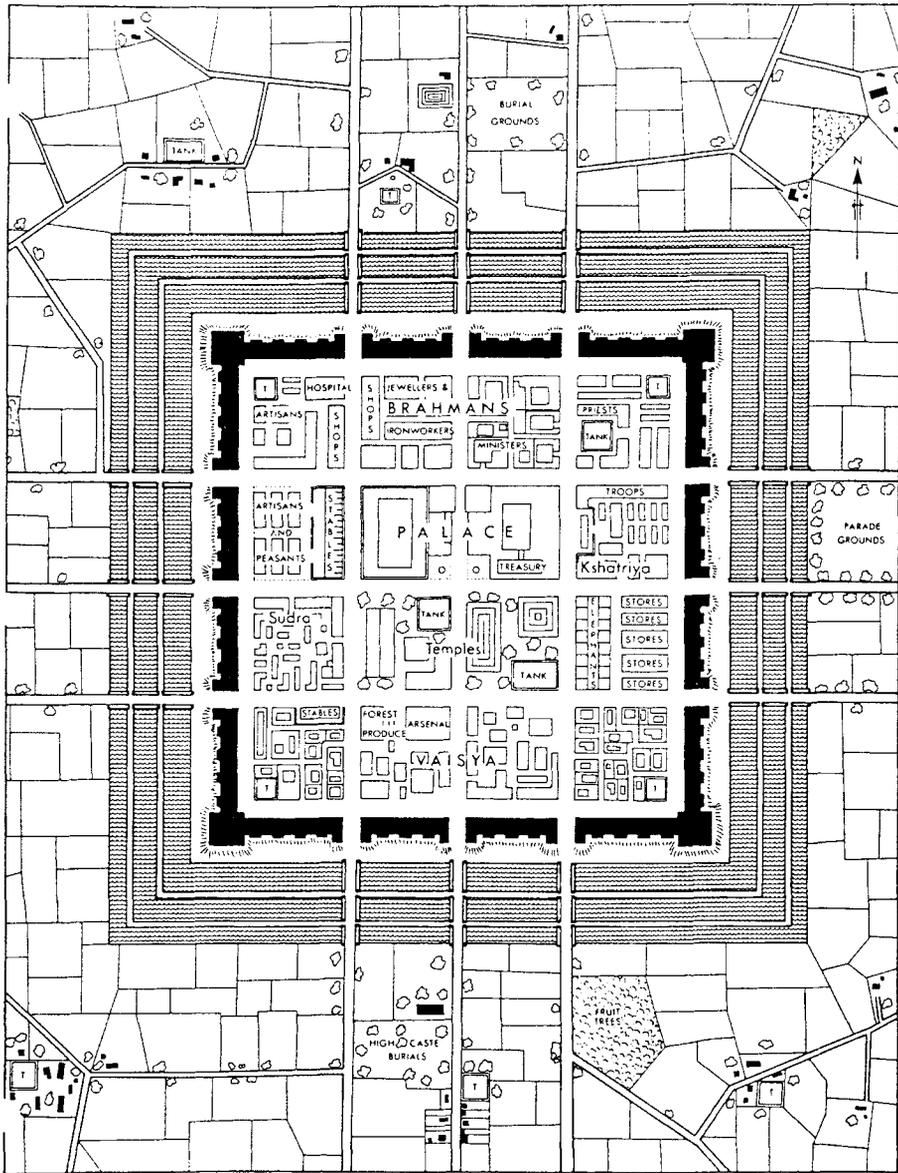
Fig. **8**

ing in society. As stated earlier the ousiders have relied on sociology and the insiders have drawn their inspiration from anthropologists. However, that many social geographers are not happy with either the ouside or inside apporaches and they take their guidance from Marxism to explain the social structure of a city.

Now, first we examine the social structure of an Indian city - Jaipur by using the outside approach, and then aspects of social areas will be discussed by using the insider approach.

Jaipur

Jaipur is the capital city of the state of Rajasthan and has a population of over a million people (in 1991 the population of Jaipur Urban Agglomeration was 1,514,425). It is a planned city. The plan was originally drawn by the Maharaja Sawai Jai Singh in 1717 and implemented by him and his asssitant Vidhyadhar Bhattachrya. The city plan draws its inspiration from the **Mansara**, a book which forms a part of the **Shilpshastras** (Roy 1978:31). Orginally the city was laid down in four blocks but later on three more blocks were added to make a total of seven blocks. It is said that the Maharaja took the local relief into account and made the seven blocks. Jaipur was built according to the **Prastara Plan** which is questioned by Roy (Roy 1978). There was a close control on the development and every plan had to be approved by Vidhyadhar (Roy 1978:41). A road is named after this planner - *Vidhyadhar ka Rasta*. The history of this city is important because it helps to explain the present day distribution of population in the walled city; this distribution may be a reflection of the decisions made by the King and his advisers. The King allocated the residential plots on the basis of caste, and the distribution closely follows the distribution suggested by Kautilya. (Kirk 1978, see also figure 8). Although, more than two hundred and fifty years have passed, and possibly the involuntary segregation has given way to the voluntary segregation but the constraints of caste over subletting or renting a house to a different group is as real as it ever was. The change in occupancy and ownesrship of houses in the walled city remains an interesting topic of research.

The city at present can be divided in the walled city and the extra walled city or the city outside the city walls. The following table shows the growth of class I cities of Rajasthan. With an exception of Kota where a number of developmental projects are located, Jaipur remains a growth center.

Rajasthan: Class I cities: Percentage variation in Population

Growth Rate

	City	Population	1961-71	1971-81
1.	Jaipur	1,004,669	55.17	57.78
2.	Jodhpur	493,609	41.31	55.41
3.	Ajmer	374,350	14.29	41.64
4.	Kota	346,928	76.98	62.88
5.	Bikaner	280,366	25.26	34.21
6.	Udaipur	229,762	45.11	42.46
7.	Alwar	139,973	38.06	39.45
8.	Bhilwara	122,338	88.87	48.91
9.	Ganganagar	121,516	41.01	34.95
10.	Bharatpur	105,239	40.43	50.55
11.	Sikar	102,946	40.19	45.02

Source: Census of India, 1981 Series - 18- Rajasthan, Provisonal population Tables Paper 1, 1981, p. 2.

In terms of developed land use the following table shows the distribution in a number of categories.

Landuse	Jaipur	Kota	Bhopal	Indore
Residential	49.6	35.8	47.5	46.5
Commercial	3.4	3.8	1.9	5.7
Industrial	7.1	11.0	10.8	12.3
Governmental	2.1	1.9	*	*
Recreational	3.4	6.8	6.3	4.4
Public & Semi1	6.9	15.7	16.6	15.9
Public Circulation	17.5	22.0	16.8	15.2
Developed Land	100.0	100.0	100.0	100.0

Sources : Draft Master Plan, Jaipur 1970:10 Draft Master Plan, Kota 1970:14 Bhopal development Plan 1974:42 Indore Development Plan 1974:28

The North American City has less percentage of land under the residential function.

Type of Use	Percentage of developed Land
Residential	39.0
Industrial	10.9
Commercial	4.8
Roads & Highways	25.7
Other-Public	19.6
Total	**100.0**

As mentioned earlier the Shevky and Bell model of social area analysis provides the theoretical foundation for the studies known as factorial ecology. The difference between these two types of studies lies in the input of variables; in social area analysis the variables are chosen to reflect the three basic dimensions but in factorial ecology the input data is not preselected. However, the details provided by the Census of India do limit the input variables. The factorial ecological study of Jaipur for 1961 and 1971 uses data derived from the District Census Handbooks. (Tiwari 1987) The thirteen variables chosen are:

Variables

1. Persons per house
2. Persons per household
3. No. of females per 1000 males
4. Percent of Scheduled Caste & Scheduled Tribes
5. Percent Literates males/ total males
6. Percent Literates females/ total females
7. Percent male workers/total male workers
8. Percent female workers/total female workers
9. Percent of total workers in Manufacturing
10. Percent of total workers in constriction
11. Percent of total workers in Construction
12. Percent of total workers in transport
13. Percent of total workers in Services

A summary of the principal component analysis for the two time periods is shown below:

Component	Eigenvalue		Variance		Cumulative	Variance
	1961	1971	1961	1971	1961	1971
I	4.04	3.87	48.5	34.1	48.5	34.1
II	3.32	3.27	24.0	25.5	72.5	59.5
III	2.52	1.61	9.3	10.1	81.8	69.6
IV	1.83	1.33	8.3	8.1	90.1	77.7

JAIPUR 1971

Fig. 9

JAIPUR 1971

CONCENTRATION OF SCHEDULED CASTES & SCHEDULED TRIBES
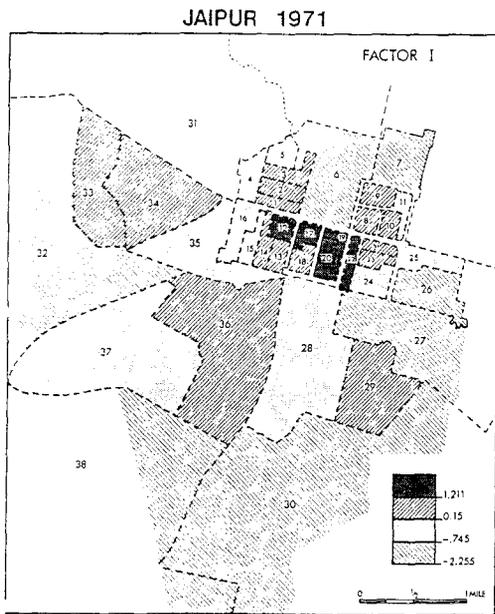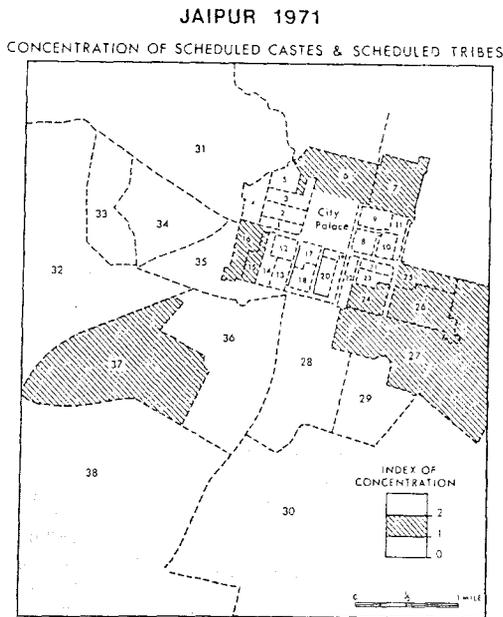

Fig. 10

A brief analysis of these components (or factors) is described below.

Factor I: Social Rank

Owing to the limited number of variables social rank is defined on the basis of positive loadings on literacy, specially female literacy and workers in trade and commerce (see Alams work on Hyderabad). The negative loadings on scheduled caste and scheduled tribes, female workers and the percentage of workers in construction which is not a high status occupation) confirms the make-up of social rank. The variables which load highly in 1961 and 1971 are shown below:

Factor I Social Rank	1961	1971
Literacy Female	.929	.780
Literacy Male	.878	.777
Workers in Trade and Commerce	.759	.863
Percentage Sch. Caste etc.	-.854	-.867
Percentage Female Workers	-.699	-.292
Percentage Workers/Construction	-.080	-.834

Figure 9 shows the distribution of social rank in 1971, the census tract facing the City Palace score highly on the factor. A distance decay function is observed, i.e. the social rank declines with the increase of distance from the center. Figure 10 shows the concentraion of scheduled caste and scheduled tribes, the negative correlation between the high social rank and the concentration of sceduled castes and sceduled can be easily deduced. The new suburbs on the periphery show a distinct "conflict zone" between the newly developing suburbs and the earlier occupants - the squatters. (Figure 11)
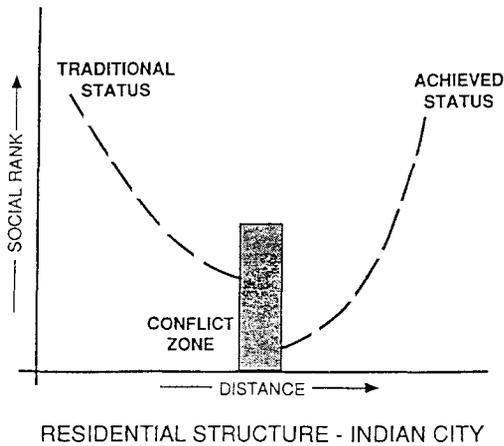
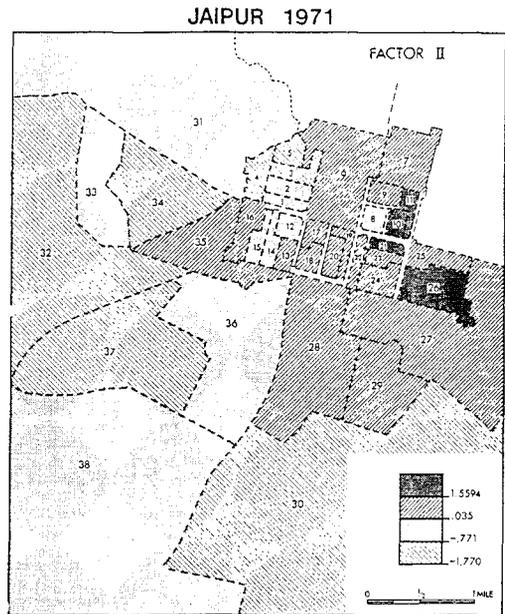RESIDENTIAL STRUCTURE - INDIAN CITY

Fig. 11

JAIPUR 1971

Fig. 12

Factor II: Workers

This factor explained 24% variance in 1961 and accounted for 25.5% variance in 1971. The variable loading on this factor are shown below:

1961		
	Workers in Transport	.890
	Workers in Construction	.872
	Workers in Service	.818
	Sex Ratio	-.872

These loadings could be taken to indicate the economic status, and therefore is a continuation of the first factor. However, in 1971 the loadings are different and indicate crowding. Also, the variable -workers in service loads negatively indicating a kind of differentiation or separation in different occupation has started. (Figure 12)

1971		
	Population per Household	.738
	Population per house	.821
	Sex Ratio	.717
	Workers in Manufacturing	.693
	Workers in Service	-.680

FEMALE LITERACY

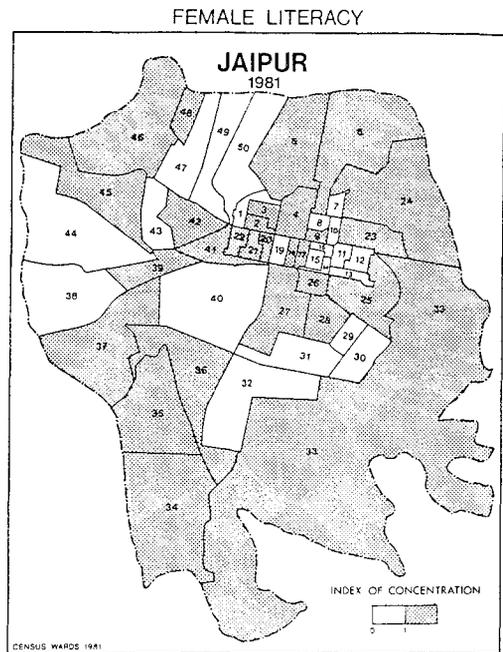Fig. 13

Factors III and IV Segregation

The residential areas occupied by the scheduled castes and scheduled tribes are fairly well marked. Inspite of the Governmental legislation about the positive discrimnation, the mobility of scheduled castes etc. is very limited. As shown in the figure Purani Basiti Chaukri is dominated by scheduled castes. This area was designated for Sucras by the King as early as 1727 but what is surprising is that this characteristic has not changed. Another kind of segregation based on economic status in the Government jobs also exists. This kind of segregation was once absent in the Princely cities but now as the administration is providing residential facilities which are allocated on the basis of rank. The following table shows the loadings of this factor.

	1961		1971	
Factor	III	IV	III	IV
Sch. Caste	.422	.129	.139	.123
Literacy Male	-.305	-.116	-.342	.124
Lietracy Female	-.101	-.165	-.422	.210
Female workers	.491	.359	.140	.735

The census tracts which load highly on this factor are *Top Khana Hazuri Chaukri* and *Ram Chanderji Chaukri*. Populated by the lower and lower middle class famillies, these *chaukris* have a lot of over crowding.

1981 Census

The 1981 census as shown earlier has changed the reporting system. This makes a factorial ecological study of the city fairly difficult. Although it is still possible to run a factor analysis programme on a fairly lim-
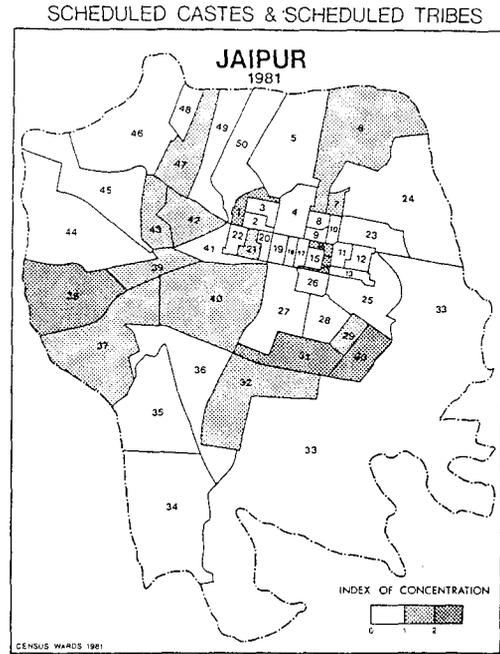

SCHEDULED CASTES & SCHEDULED TRIBES

Fig. 14

ited number of variables but this would have been a misuse of a method. Also as Alam had shown in his study of Hyderabad that social rank can be calculated by using limited number of variables. Two variables seem to stand out, (a) female literacy and (b) the distribution of scheduled castes and scheduled tribes. As the figures 13 and 14 show that there is an inverse relationship which exists between these two variables. Jaipur is a traditional city, and the growth of female literacy is an important indicator of "modernization" in this city.

The percentage may not look very high when compared with the female literacy in Kerala, but in Rajasthan, these figures are quite encouraging. A rough map indicating the social areas of the city can be constructed by using these two variables. Figure 15 shows
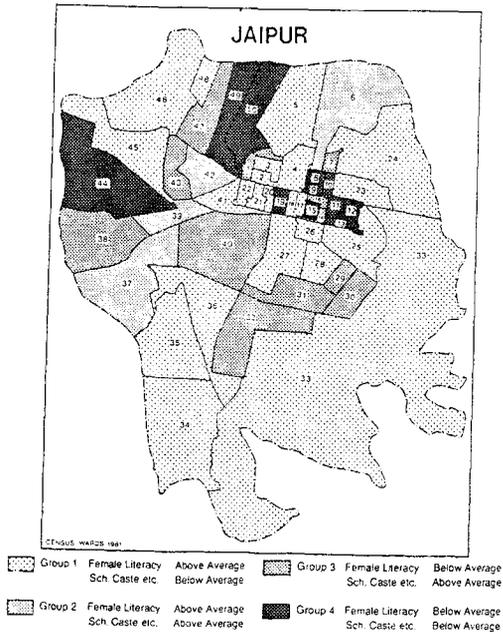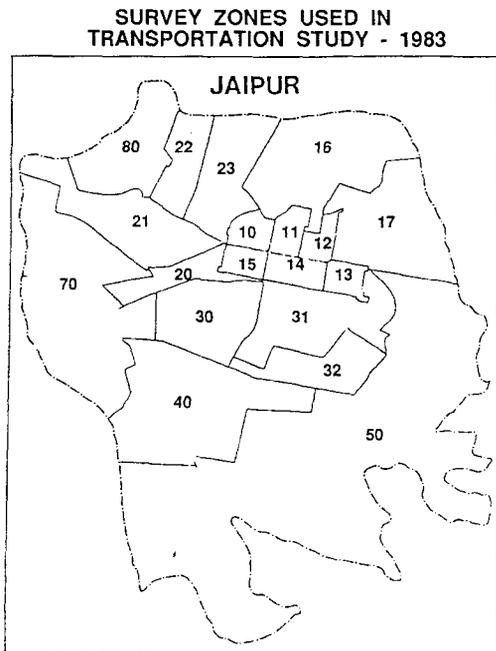
Fig. 15

**SURVEY ZONES USED IN
TRANSPORTATION STUDY - 1983**

Fig. 15 A

that various census tracts can be grouped in to four areas.

Female Literacy Rates in Jaipur

Year	Percentage
1901	.6
1911	1.3
1921	2.3
1931	3.4
1941	6.5
1951	15.5
1961	28.7
1971	36.4
1981	43.1
1991	53.99

As the outsider's view, two points can be made that duality in this city exists, i.e. the walled city and the extra walled city. The walled city still shows the traditional distribution of social rank and the distance decay function, but in the extra-walled city suburbanization is taking place. The "insider's view" has been discussed earlier; owing to the limitation of the data only few questions are asked below. These are:

(a) Is there any difference in the family size?

(b) What is the pattern of income distribution within the city?

(c) As the neighbourhoods in Indian cities are considered quite stable, what is the length of stay in a house?, Does it vary between the walled and extra walled city?

(d) What is the pattern of allocation of household budgets?

(e) What is the pattern of ownershp of vehicles? and, the length of distance between the place of work and home?

Data:

The data used in the following analysis is derived from the filled-in questionnaires used in a transport study conducted by an Indo-British research team in Jaipur in 1983. Four zones chosen for analysis are based on figure 15 and represent a cross-section of the city.

Size of household:

The change in the size of a household is considered an indicator of modernization and it has often been argued that with the increase of urbanization the size of the family decreases. Sheveky & Bell's urbanization constructs takes this into account in forming the urbanization index. Qadeer observed:

> "There is sufficient evidence to show that the urbanization was not affecting the household size in South Asia."
>
> (Qadeer 1974:269)

Figure 16 shows the distribution of number of persons per household, first by census tract and then by the survey zones used in the Jaipur Transport study of 1983, there is no clear indication of differences between the suburbs and the center of the city, which in a way supports what Qadeer was stating. The census of Jaipur 1981 shows a very close relationship between the number of houses and the number of households (i.e. for 100 occupied houses the number of households was 100.36). However in the se-

Jaipur - Walled City - Number of Persons Per House

Chowkri	1891	1931	1971	1981
Topkhana Dash	7.0	6.3	6.2	5.7
Sarhad	6.2	5.2	6.3	5.3
Gangapol	5.9	5.5	6.1	5.5
Modikhana	8.7	7.7	5.9	6.5
BlshewerjI	9.7	9.1	6.4	5.4
RamchanderJl	6.7	6.6	6.5	6.6
Ghat Darwaja	7.3	6.6	6.3	6.1
Purani Bastl	6.6	5.7	6.1	5.4
Topkhana Hazurl	4.6	4.9	6.5	6.7

lected zones the differences, though not greatly significant do occur.

Zone	Number of Persons per Household
10	4.6
14	6.5
22	4.8
32	5.3

Fig. 16

JAIPUR
Distribution of Household Income, 1983

RS. PER MONTH

1,600
1,500
1,350
950
800
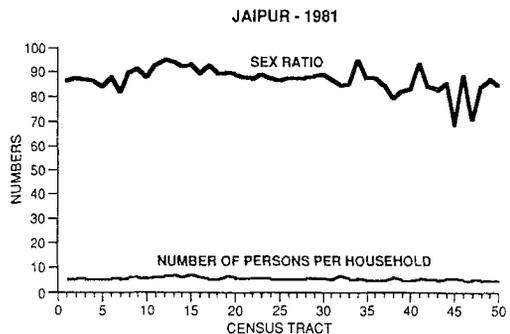700

Survey Sub Zones 1983
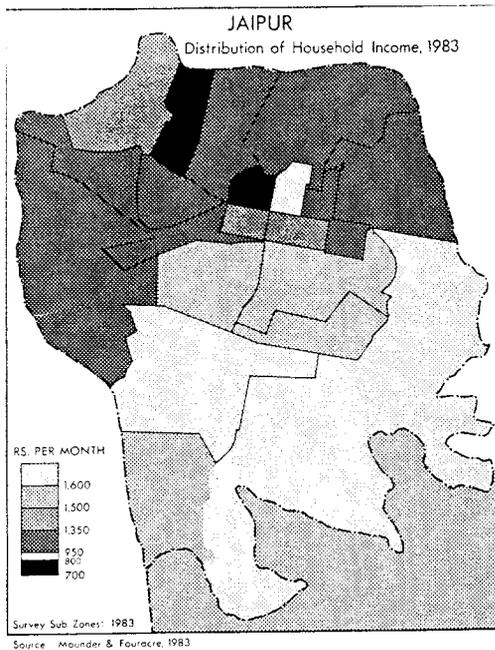
Source Maunder & Fouracre, 1983

Fig. 17

Fig. 18

In the walled city the decrease over a longer period is shown in the following table. How much of this decrease is caused by family planning and to what degree urbanization is responsible for the decrease is very difficult to answer.

THE RELATIONSHIP BETWEEN VEHICLE OWNERSHIP AND HOUSEHOLD INCOME: JAIPUR
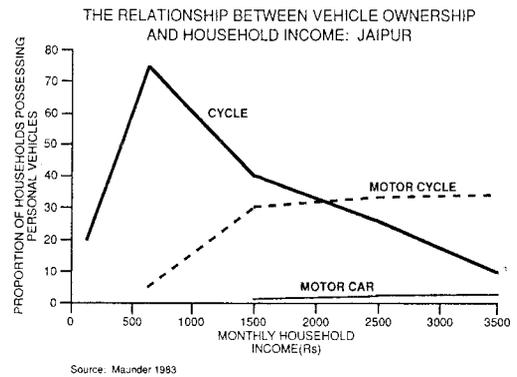
Source: Maunder 1983

Fig. 19

Income

Figures 17 and 18 show the distribution of income within the city. The newer sub-urban areas of south and south east display higher income than the sub-urban areas of the north. The suburb of Jawahar Nagar and Tilak Nagar are occupied by the professionals, hence the higher income, but in certain parts the mixture of rich and poor does provide an example of conflict and sometime symbiosis. In the walled city, zone no. 14. which has Bishewarji chowkri, where the traditional upper class resides, hence higher incomes. One has to be careful in interpreting the figures, because very often only one wage earner has been reported. In suburbs, like Jawaharnagar, a greater number of women were at work, a sign of support for the Shevky and Bell construct of urbanization.

Length of Stay

North Americans are considered most mobile people in the world and intra-urban mobility has been fairly well studied topic. The intra-urban mobility in an Indian city

is limited by the availability of housing and by the housing supplied by the public sector enterprises. The supply of housing by the Governments and lately by large industrial enterprises have made these gropus attarctive to the labour. The housing available for rent is fairly limited (a) because a very small number of houses are built for rent, (b) by the rent control (c) and in some parts of India by the Government's effort to protect the right of the renter, e.g. in some cities if a renter has occupied a property for 12 consecutive months he/she cannot be evicted. Therefore, most of the leases are for 11 months only. In Jaipur, which is a city of more than a million there was only one real estate agent who did not deal with the housing at all.

Renting of a house was done by personal contacts and this made sure that the house or a room was not given to an undesirable person. The landlords have had no problems in subletting the house because of the high demand and low supply. The conditions for subletting are in some cases not to cook meat or to leave shoes near the door etc. etc. In Jaipur, Urban Improvement Trust was responsible for planning new housing areas.

The length of stay in the older part (Zone 14) shows that as much as 86% of

Jaipur 1983 : Percentage of Monthly Income Spent on Food

Zone	Lowest	Highest	Average
10	30	61	45
14	15	55	33
22	20	68	48
32	28	70	50

Source: *Jaipur Transport Survey 1983*

the people surveyed have been in the same house for more than 10 years. Only in the newer suburb of Jawahar Nagar, which is still being built, a high percentage is seen in the group less than two years. However, it is fair to say that once people come to live in suburb the mobility will cease. The journey to work which seem to be an important consideration in the decision to own a house does not affect the decision in the same way as it may do in the cities of Developed World. The development of suburbs also should not be taken as a sign of "westernization"- here the suburbs are really accommodating the overflow from the inner city.

Household Budget Allocation

The basic needs of human beings are, food, shelter and clothing. The following discussion will not deal with clothing, but, will examine, food, rent and sownesrhip of vehicles which are normally used for going to work. The following table shows monthly income spent on food and rent. For food the percentages vary between the lowest 15% to a high of 70%, 45 to 50% are more common. This figure by any standard indicates a very high proportion of income going to food. Higher the income lower was the proportion going to food. However, income and allocation of budget on food is by no means any indicator of nutritional value of the food eaten. It has been commonly observed that when poor people were cleaning their grain and grinding their own flour they were taking more nutritional food than they do now with polished rice and mill ground flour. What is needed is more nutritional education and a lot more advertisement for eating right food. India, afterall has been exporting food.

Rent

There seems to be a great deal of confusion about the rent. The questionnaire did not make it clear that what the researchers were seeking the "housing expense", which will also include the house tax etc. In zone 10, out of a sample of 49 not even one person reported rent.

On an average rents are higher in suburbs than in the walled city, which is not a surprise. Rents, in normal cases, can be taken as an indicator of housing quality, but. sometimes cheaper rents are given to relations and friends-less trouble. This is seen more in the walled city than in suburbs.

Jaipur 1983 - Rent Per Month (in Rs.)

Zone	N	Lowest	Highest	Average
10	49	No Rent Reported		
14	51	40	200	115
22	50	93	350	203
32	50	60	400	311

Ownership of Vehicles

Figure 19 shows the relationship between income per month and the ownership of vehicles. The most common vehicles, poor men's beast of burden - is cycle. India not only manufactures a large number of cycles but has managed to capture most of the markets surrounding the Indian Ocean. In Kenya, e.g. in late 1950s and early 1960s only the British models of cycles were seen on the road, but now the cycles one sees in Kenya are manufactured in India. Lunas and scooters have become family vechiles for the large middle class and the ownesrship of a car remains a status symbol. Jawahar Nagar shows the largest number of scooters and cars, which is not surprising.

The distance between the place of work and home varies, e.g. in zone 10, most of the workers travelled by cycles for a journey of 1 Km. In the newer suburbs scooters are used, hence distance between the place of work and home is around 5 Km. However, the distance between the place of work and home is not as important a determinant in a decision to buy a house as in the cities of industralized countries. This is a reflection of limited number of good houses available either for buying or renting.

Conclusions

Social geography, like other social sciences is having its own internal crisis. This crisis has its root in (1) the misunderstanding where scientific and quanitaive terms are considered synonomyous, while they are not; (2) the war cry for using theories, and forgetting that theories in social sciences are empirically based. therefore are not independent of the subject matter they were drawn from. Theories at best should be a guide to our studies but currently, seem to be dictating what our studies ought to be; and, (3) the role of scale, we should ask whether we are using meta scale or micro scale. A city planning report at meta scale may look very spohisticated but its implementation at the local or micro level may not be possible - A common occurance in the cities of Developing as well as Developed world.

Social Geographers have been using three approaches, the outsiders, the insiders and the Marxist approach. In this paper the first two were used to a degree. The outsiders tend to rely on sociology and the insiders are guided by anthropology. Once again. it is a matter of scale, and how one will pro-

ceed to generalize from large scale to small one or other way round. The basic problem as identified in the history debate is that reality is complex, and in order to have a holistic picture we have to venture in our sister disciplines. Why we should have any problem with this, after all, anthropologist are also being told to study Christaller.

The city of Jaipur is growing at the expense of other cities in that system. The basic reason for this growth is the importance of administration, which is a basic activity, and helps to generate other activities by its control of resources, e.g. one needs permits for cement or to obtain a bus or a truck etc. etc. Housing in Jaipur is a problem and the public sector builds and allocates housing. With all the difficulties one is always surprised by the ability of human beings to put up with so many difficulties.

An overall assessment of living conditions, is that for at least last fifteen years a great deal of improvement has taken place. However, the disturbing aspect of conditons in Jaipur, or for that matter in other cities of India, is that expectation levels of individuals are rising much faster than the capacity of the Governments at various level to meet them. This, of course is likely to generate frustrations, which may lead to social unrest which will be a problem in years to come.

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